

### REMARKS

This paper is in response to the Office Action dated December 31, 2002. Claims 1 and 17-39 are pending. Claims 1 and 17-39 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Derwent Publication Abstract No. 77-872784 to Hiraiwa Daiku ("Hiraiwa") in view of four secondary references: (1) Derwent Publication Abstract No. 81-06781D to Yoshitomi Pharm. ("Yoshitomi"); (2) Chemical Abstract No. 1993:497510 to Yamauchi ("Yamauchi"); (3) WO95/22902 to Kodama et al. ("Kodama"); and (4) Chemical Abstract No. 1987:454179 to Metzner et al. ("Metzner"), collectively "the four secondary references."

The presently claimed invention is directed to an adhesive composition comprising a wood adhesive and a pyrazole-based insecticide containing fipronil. In certain claimed embodiments, the wood adhesive is a thermoplastic resin such as ethylene-vinyl-acetate copolymer, or a thermosetting resin such as phenol-formaldehyde resin and resorcinol-formaldehyde resin.

The Office Action alleges that Hiraiwa teaches a wood adhesive composition consisting essentially of a suitable amount of insecticide and an adhesive, though it admits Hiraiwa's failure to teach that the insecticide may be a pyrazole-based compound comprising, for example, fipronil. Hiraiwa also fails to teach that the adhesive resin may comprise ethylene-vinyl-acetate copolymer, phenol-formaldehyde resin, or resorcinol-formaldehyde resin.

Nevertheless, the Office Action proposes to combine the teachings of Hiraiwa with the four secondary references, none disclosing the instantly claimed compositions,<sup>1</sup> to arrive at the claimed invention. Nowhere, however, does the Office Action assert that Hiraiwa, or any one of the four secondary references, teaches or provides the motivation to make the proposed combination of cited references. Rather, apparently relying on common knowledge in the relevant art, the Office Action simply states that “it would have been *prima facie* obvious to a person of ordinary skill in the art, at the time the claimed invention was made, to modify the composition of HIRAIWA DAIKU by employing the specific compounds cited in the instant claims, e.g., fipronil as the insecticide and the specific resins cited in the instant claims as the adhesive resin.” (Office Action at page 3).

A statement that, because the cited references together demonstrate that all aspects of the claimed invention were individually known in the art, modification of the prior art to meet the claimed invention would have been *prima facie* obvious to a person of ordinary skill in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. Despite official notice that fipronil is “an old well-known insecticide” (Office Action at page 4), the primary reference relied upon (*i.e.*, Hiraiwa)

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<sup>1</sup> Kodama teaches pyrazole-based insecticides. Yoshitomi teaches the wood adhesives, phenol-formaldehyde resin and resorcinol-formaldehyde resin. Yamauchi teaches the wood adhesive ethylene-vinyl acetate copolymer. Metzner teaches a composition consisting of a wood adhesive and a termiticide.

does not teach its use, thereby supporting Applicant's position that its use for an adhesive as claimed, though perhaps conceptually simple, was not at all obvious. *See, e.g., Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993); *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (reversing obviousness rejection involving technologically simple concept because there was no finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the artisan to make the claimed invention); *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 1325, 50 U.S.P.Q.2d 1161, 1171 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide the suggestion to combine references.); *see also* M.P.E.P. §2143.01. Indeed, if fipronil is "an old well-known insecticide" and the presently claimed combination is obvious as asserted in the Office Action, the skilled artisan surely would have expected the combination in the art long before the filing date of the instant invention. This is clearly not the case.

Noting that a composition consisting of an adhesive and a termiticide is known to be useful in wood products, the Office Action nevertheless asserts that the skilled artisan would have been motivated to combine pyrazole compounds having fipronil (because fipronil is a known insecticide) with the specific adhesive resins (because they are known wood adhesives) to reach the claimed invention. This reasoning improperly relies on the level of skill in the art, without more, to provide the suggestion or motivation to combine which is required to establish a *prima facie* case of obviousness. The mere fact that references can be combined does not render

the proposed combination obvious. Especially where the combination is of multiple references, as is here, the suggestion of the asserted desirability of the specific combination more likely is built upon the Applicant's disclosure using impermissible hindsight. *See, e.g., In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992); *In re Lee*, 277 F.3d 1338, 1342-44, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002) (emphasizing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references).

In fact, Applicant asserts that the motivation to combine the cited references are not found within the teachings of the references themselves, and a combination to reach the claimed adhesive compositions comprising a pyrazole-based insecticide containing fipronil were not in the knowledge of persons of ordinary skill in the art. Representing that the cited references teach the claimed insecticides, or the claimed wood adhesives, or combinations of insecticides and adhesives different from the claimed invention, the Office Action improperly attempts to shift the burden to the Applicant to rebut the lack of limitations within the cited references, rather than proffer the specific finding for the motivation to combine the cited references to reach the claimed fipronil-containing adhesive.

Moreover, the Office Action asserts that Applicant's "suggestion of unpredictability of the insecticidal and adhesive properties when insecticide and adhesive is [*sic*] combine[d] is contrary to the prior art teaching, and without any factual basis." (Office Action at

page 4). Indeed, the implication offered in the Office Action that any known chemical compound having insecticidal properties can be predictably formulated with any known chemical compound having adhesive properties is contrary to well accepted scientific principles and lacks supporting objective evidence. *See, e.g., In re Carleton*, 599 F.2d 1021, 1026, 202 U.S.P.Q. 165, 170 (C.C.P.A. 1979) (“Although there is a vast amount of knowledge about general relationships in the chemical arts, chemistry is still largely empirical, and there is often great difficulty in predicting precisely how a given compound will behave.”). It is apparent to the skilled artisan that mixing any known insecticide and any wood adhesive, as suggested by the Office Action, cannot have a reasonable expectation of success.

Thus, Applicant reiterates that, at the time of filing of the instant application, there would have been neither motivation nor a reasonable expectation of success to combine the cited references to arrive at the claimed wood adhesives comprising fipronil. Accordingly, withdrawal of the rejection of Claims 1 and 17-39 under 35 U.S.C. § 103(a) is respectfully requested.

### **Conclusion**

Applicant respectfully requests reconsideration of the sole outstanding rejection, and entry of the foregoing remarks into the file history of the above-identified application. Applicant believes that the foregoing remarks place the claims in condition for allowance, and accordingly, respectfully requests withdrawal of the outstanding rejections. In further support of

the above remarks, a Declaration under 37 C.F.R. § 1.132 will shortly follow.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'P. Shen', written over a horizontal line.

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